

WE CLAIM:

- 1 1. A system for incorporating local content into a communication stream,
2 comprising:
 - 3 a) means for transmitting a communication stream including program content to a
4 receiver;
 - 5 b) means for inserting in the program content tags descriptive of local action at the
6 receiver;
 - 7 c) means for capturing the program content at the receiver and storing the tags in
8 tables; and
 - 9 d) means for processing the tags to insert local content in place of the program
10 content for re-transmission to the local area served by the receiver.
- 12 2. The system of Claim 1 further comprising:
 - 13 e) means for authoring tags and inserting them into the program content.
- 15 3. The system of Claim 1 further comprising:
 - 16 f) means for scheduling the tags in the program content for local action.
- 18 4. The system of Claim 1 further comprising:
 - 19 g) a first table means in the receiver for storing a first tag in the program content;
20 and

4 h) a second table means in the receiver for storing a second tag in the program
5 content.

1 5. The system of Claim 1 wherein the first tag comprises:
2 i) means for identifying local content for splicing or replacing program content.

1 6. The system of Claim 1 wherein the second tag comprises:
2 j) means for overriding the local tag with other content.

1 7. The system of Claim 1 wherein each tag comprises a header, tag type and local
2 action.

1 8. The system of Claim 1 wherein the processing means comprises;
2 k) a supervisor for scanning a first and a second table for tags; and
3 l) means for detecting a scheduled time in the program content for initiating and
4 transmitting local action described in a tag.

1 9. The system of Claim 1 wherein the means for inserting tags in the program
2 content comprises:
3 m) an authoring tool generating local and override tags; and
4 n) means included in each tag defining a header, a tag type and local action.

1 10. An enhanced TV system comprising:

2 a) at least one source for transmitting compressed, packetized audio/video program

3 content with tags in a communication stream;

4 b) at least one enhanced TV station for receiving the communication stream;

5 c) means for expanding the received communication stream;

6 d) means for processing the tags in the communication stream to insert local content

7 underlying or spliced into the program content; and

8 e) local receivers for receiving, viewing and interacting with the program content.

1 11. The enhanced TV system of Claim 10 further comprising:

2 f) computer means including a memory;

3 g) program instructions stored in the memory for authoring tags; supervising tag

4 processing;

5 h) scheduling tag insertion into the program content and splicing tags into the

6 program content; and

7 i) means coupling the computer to web servers for e-commerce, database

8 information and tracking interaction with the local receivers.

1 12. The enhanced TV system of Claim 11 further comprising:

2 j) the local receiver means generating and transmitting messages to the enhanced TV

3 station; and

4 k) means for transmitting the messages and/or the tags to the web servers which

5 provide content for the tags and/or respond to the messages.

1 13. A method of processing tags in a communication stream containing program
2 content for delivery to a receiver, comprising the steps of:
3 a) capturing the program content including the tags and storing the tags in tables at
4 the receiver; and
5 b) processing the tags to insert local content in place of the program content at a
6 scheduled time in the program content for re-transmission to an area served by the receiver.

1 14. The method of Claim 13 further comprising the step of:
2 c) scheduling the tag in the program content for incorporation into the
3 communication stream at scheduled insertion points.

1 15. The method of Claim 13 further comprising the step of:
2 d) coupling a settop box to the receiver for interaction in accordance with an action
3 defined in a tag.

1 16. The method of Claim 13 further comprising the step of:
2 e) sending messages to the transmitter from settop boxes.

1 17. The method of Claim 13 further comprising the step of:
2 f) tracking settop interaction with the receiver or local modifications made by the
3 tag in the program content.

1 18. The method of Claim 13 further comprising the step of:
2 g) transmitting messages to web servers for contents identified by the tag or
3 requests from settop boxes.

1 19. A supervisor module in an enhanced TV station comprising:
2 a) means for reading program content in a communication stream from a transmitter;
3 b) means for identifying tags in the program content;
4 c) means for inserting identified tags in tables; and
5 d) means for replacing program content with local content based on the identified
6 tags.

1 20. The supervisor module of Claim 19 further comprising:
2 e) means for storing the tags in a local table or an override table according to a tag
3 identifier.

1 21. The supervisor module of Claim 19 further comprising:
2 f) means for implementing the local table tags in the program content unless
3 replaced by the override table tags.

1 22. A method for processing tags to replace program content in a communication
2 stream with local content, comprising the steps of:
3 a) reading program content in a communication stream;
4 b) identifying tags in the program content;

5 c) inserting identified tags in tables; and
6 d) replacing program content with local content based on the identified tags.

1 23. The method of Claim 22 further comprising the step of:
2 e) storing the tags in a local table or an override table according to a tag identifier.

1 24. The method of Claim 22 further comprising the step of:
2 f) implementing the local table tags in the program content unless replaced by the
3 override table tags.

1 25. A method for installing tags to replace program content in a communication
2 stream with local content, comprising the steps of:
3 a) commanding a capture device to read the program content;
4 b) obtaining the tags in the program content and the location and where they are to
5 be inserted into the content;
6 c) scheduling the tags so that they arrive in the content by the time specified for their
7 insertion;
8 d) inserting the tags into the program content at the scheduled time; and
9 e) storing the finished program content with the tags or encoding the program
10 content and the tags for broadcast.

1 26. A program medium executable in a computer system for processing tags in a
2 communication stream containing program content for delivery to a receiver, comprising:
3 a) program instruction in the medium for capturing the program content including
4 the tags and storing the tags in tables at the receiver; and
5 b) program instructions in the medium for processing the tags to insert local content
6 in place of the program content at a scheduled time in the program content for re-transmission to
7 an area served by the receiver.

1 27. The program medium of Claim 26 further comprising:
2 c) program instructions in the medium for scheduling the tag in the program content
3 for incorporation into the communication stream at scheduled insertion points.

1 28. The program medium of Claim 26 further comprising:
2 d) program instructions in the medium for coupling a settop box to the receiver for
3 interaction in accordance with an action defined in a tag.

1 29. The program medium of Claim 26 further comprising:
2 e) program instruction in the medium for sending messages to the transmitter from
3 settop boxes.

1 30. The program medium of Claim 26 further comprising:
2 f) program instructions in the medium for tracking settop interaction with the
3 receiver or local modifications made by the tag in the program content.

1 31. The program medium of Claim 26 further comprising:

2 g) program instructions for transmitting messages to web servers for contents

3 identified by the tag or requests from settop boxes.